New claims 27 and 28 have been added. Claims 1-28 are now pending in this application. The Applicant appreciates the Office reconsidering the previously issued final action, and the issuance of this new, non-final action.

Reconsideration of the application is earnestly requested.

The Office action summary does not indicate whether the drawings filed have been accepted or objected to by the Examiner. Formal drawings have been filed and Applicant requests that the next communication indicate whether or not these drawings have been accepted.

The Office action has rejected claims 1-26 under §102(e) as being anticipated by *Jacobson* (U.S. Patent No. 7,020,598). Although the Examiner's arguments have been carefully considered, Applicant respectfully traverses this rejection as explained below.

The Present Invention

The background of the present specification points out at page 2 that new techniques are desired for testing and debugging programmable logic devices (PLDs). The summary of the invention beginning at page 3 discloses that embedding a microprocessor directly into the PLD allows for faster testing or debugging. Figure 3 shows clearly that the microprocessor 108 is embedded inside the PLD 16 and that the PLD also includes memory and programmable logic. Further, step 304 discloses embedding the microprocessor inside the PLD. The embedded microprocessor is then used for direct testing or debugging of the PLD of which it is inside.

Claim 1 specifically requires a programmable logic device that comprises "a hardcoded microprocessor in communication with programmable logic." In other words, the microprocessor is embedded inside the PLD. Claim 7 likewise requires a microprocessor inside the PLD. Claim 13 specifically requires "manufacturing a PLD that includes programmable logic, an embedded microprocessor and associated memory." Claim 20 similarly requires "mounting in a test socket a PLD that includes user logic, an embedded microprocessor and associated memory." Claims 13 and 20 thus require a microprocessor embedded within the PLD.

The Cited Art Distinguished

Jacobson, by contrast, although it is concerned with diagnosing a PLD remotely, discloses quite the opposite of embedding a microprocessor within the PLD. Figure 1 of *Jacobson* shows an electronic device 100 that includes a microcontroller 105 in communication with a programmable logic device 110. The electronic device is defined as being a mobile telephone, digital assistant, switching equipment, pager, computer, etc. Clearly, the microcontroller 105 is <u>outside</u> of the programmable logic device 110: <u>the microcontroller is not embedded inside the PLD</u>.

Figures 2, 5, 6 and 8 also clearly disclose that the only embodiments contemplated by *Jacobson* are that the microcontroller is physically separate from and outside the programmable logic device. By contrast, independent claims 1, 7, 13 and 20 of the present invention all require that the programmable logic device include the microprocessor or that the microprocessor be embedded within the programmable logic device. Lines 35-59 of column 3 of *Jacobson* also disclose that the microcontroller performs diagnostic tests on a physically separate programmable logic device. Further, the final embodiment disclosed at column 15, lines 41-47 of *Jacobson* teaches that is desirable to locate the microcontroller <u>outside</u> of the electronic device, *i.e.*, even farther away from the programmable logic device. In light of this final embodiment, the only conclusion to be drawn is that *Jacobson* teaches away from the present invention by requiring that the microcontroller is either physically separate from the programmable logic device or is located farther away from it.

For all these reasons, it is respectfully submitted that *Jacobson* does not teach or suggest (and in fact teaches away from) a programmable logic device that includes a microcontroller for testing or debugging purposes as required by independent claims 1, 7, 13 and 20.

New Claims

Applicant submits that claims 1 and 7 clearly require a hard-coded microprocessor that is inside the programmable logic device. Nevertheless, new claims 27 and 28 have been added to require that the microprocessor be embedded within the programmable logic device.

<u>Dependent Claims</u>

Since the dependent claims 2-6, 8-12, 14-19 and 21-28 depend from the independent claims, it is respectfully submitted that they are each patentable over the art of record for at least the same reasons as set forth above with respect to the independent claims. Further, each of the dependent claims require additional features that when considered in light of the claimed combination further distinguish the claimed invention from the art of record.

Reconsideration of this application and issuance of a Notice of Allowance at an early date are respectfully requested. If the Examiner believes a telephone conference would in any way expedite prosecution, please do not hesitate to telephone the undersigned at (612) 252-3330.

Respectfully submitted,
BEYER WEAVER LLP

/Jonathan O. Scott/

Jonathan O. Scott
Registration No. 39,364

BEYER WEAVER LLP
P.O. Box 70250
Oakland, CA 94612-0250

Telephone: (612) 252-3330
Facsimile: (612) 825-6304